

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A system for providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to a public switched telephone network (PSTN), comprising:

    a computer controlled switch operable for use by subscribers and adapted for connection to a local public switched telephone network and capable of receiving calls from the IP network and [[or]] the PSTN and routing calls to the PSTN and the IP network; and

    gate interface circuitry connected to the computer controlled switch and adapted for connection to the IP network;

    said computing controlled switch containing, for each subscriber, destination addresses on the PSTN and the IP network;

    whereby calls to a subscriber received by the computer controlled switch are automatically routed to each destination address on the PSTN or the IP network for that subscriber,

wherein said computer controlled switch receives an incoming call from the IP network or the PSTN and simultaneously routes the call to a plurality of pre-designated destination addresses which may be on the IP network, on the PSTN, or on both the IP network and the PSTN.

2. (Original) The system of claim 1 wherein said gate interface circuitry includes gateway circuitry for interfacing between the IP network and the voice circuits of the PSTN, and gatekeeper circuitry for performing address translation, admission control, bandwidth management and zone management between the IP network and the PSTN.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

3. (Original) The system of claim 2, further comprising:

a voice response unit connected between the gate interface circuitry and the switch for receiving voice signals and converting them to digital tones for the switch.

4. (Original) The system of claim 3, further comprising a message system connected to the IP network and the switch.

5. (Original) The system of claim 4 where said message system receives voices messages and converts them to e-mail messages.

6. (Original) The system of claim 5 wherein said message system receives facsimile messages and converts them to e-mail messages.

7. (Original) The system of claim 6 wherein said message system receives e-mail messages and converts them to voice messages.

8. (Original) The system of claim 7, wherein the devices connected to the IP network are computers or telephones with a gateway circuitry interface.

9. (Original) The system of claim 8 wherein the computers connected to the IP network include multi-media software for packetizing voice signals into a digital format for transmission over the IP network.

10-11. (Canceled)

12. (Currently Amended) The system of claim 1 [[11]] wherein said computer controlled switch performs caller identification functions after routing the incoming call.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

13. (Original) The system of claim 1 wherein said computer controlled switch performs Class 5 switching of incoming calls.

14. (Currently Amended) A method of providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to the public switched telephone network (PSTN), the steps of the method comprising:

interfacing the digital data signals of the IP network with the voice signals of the PSTN;  
interfacing the control signals of the IP network with the PSTN to perform address translation, admission control, bandwidth management and zone management;  
routing calls between the devices connected to the IP network and devices connected to the PSTN;

maintaining information corresponding to subscribers;  
storing for each individual subscriber destination addresses on the PSTN and the IP network;  
[[and]]

automatically routing calls to a subscriber to each destination address stored for that subscriber, and

receiving an incoming call from the IP network or the PSTN network and simultaneously routing the call to a plurality of predesignated destinations which may be on the IP network, on the PSTN network, or on both the IP network and the PSTN network.

15. (Original) The method of claim 14, further comprising receiving voice signals from the IP network and converting them to signals for use by the PSTN.

16. (Original) The method of claim 14, further comprising receiving voice messages and converting them to e-mail messages.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

17. (Original) The method of claim 14, further comprising receiving facsimile messages and converting them to e-mail messages.

18. (Original) The method of claim 14, further comprising receiving e-mail messages and converting them to voice messages.

19. (Canceled)

20. (Currently Amended) The method of claim 14 [[19]], further comprising performing caller identification functions after routing the incoming call.

21. (Currently Amended) A system for providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to a public switched telephone network (PSTN), comprising:

a computer controlled switch adapted for connection to a local ~~the~~ public switched telephone network and capable of receiving calls from the IP network and the PSTN and routing calls to the PSTN and IP network; and

gate interface circuitry connected to the computer controlled switch and adapted for connection to the IP network,

wherein the computer controlled switch is operable to simultaneously route a received call to a plurality of pre-designated destination addresses comprising one or more IP address and one or more PSTN numbers.

22. (Previously Presented) The system of claim 21, wherein said computer controlled switch is operable to perform Class 5 switching of incoming calls.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

23. (Previously Presented) The system of claim 21 wherein said gate interface circuitry includes gateway circuitry for interfacing between the IP network and the voice circuits of the PSTN, and gatekeeper circuitry for performing address translation, admission control, bandwidth management and zone management between the IP network and the PSTN.

24. (Previously Presented) A method of providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to the public switched telephone network (PSTN), the method comprising:

interfacing the IP network and the PSTN;  
receiving a call originating from a source selected from the group consisting of the IP network and the PSTN; and  
routing the call simultaneously to a plurality of predesignated destination addresses comprising one or more IP address and one or more PSTN numbers.

25. (Previously Presented) The method of claim 24, further including performing class 5 switching of the received call.

26. (Previously Presented) The method of claim 24, further including performing address translation, admission control, bandwidth management and zone management between the IP network and the PSTN.

27. (Currently Amended) A system for providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to a public switched telephone network (PSTN), comprising:

a computer controlled class 5 switch adapted for connection to ~~a local the~~ public switched telephone network and capable of receiving a real-time voice communication call originating from a telephone coupled with the PSTN ~~calls from the IP network and the PSTN~~ and routing the real-time voice communication call to the IP network ~~calls to the PSTN and the IP network~~; and

gate interface circuitry connected to the computer controlled switch and adapted for connection to the IP network.

28. (Currently Amended) The system of claim 27, wherein the class 5 switch is operable to route ~~[[a]]~~ real-time voice communication calls originating from telephones coupled with any one of a plurality of local PSTNs to the IP network.

29. (Currently Amended) The system of claim 27, wherein the class 5 switch is operable to route ~~[[a]]~~ real-time voice communication calls originating from ~~[[a]]~~ phones coupled with ~~[[a]]~~ conventional private branch exchanges (PBXs) to the IP network.

30. (Currently Amended) The system of claim 27, wherein the class 5 switch is operable to route ~~[[a]]~~ real-time voice communication calls originating from ~~[[a]]~~ phones coupled with non-private branch exchange elements to the IP network.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

31. (Currently Amended) The system of claim 27, wherein the class 5 switch is operable to route ~~subscriber real-time voice communication calls between from the IP network and to the PSTN, and~~ prohibit routing of non-subscriber calls between the IP network and the PSTN.

32. (Currently Amended) The system of claim 31 [[27]], wherein the class 5 switch is operable to route [[a]] ~~real-time voice communication calls~~ originating from the IP network to [[a]] phones coupled with [[a]] conventional private branch exchanges (PBXs).

33. (Currently Amended) The system of claim 31 [[27]], wherein the class 5 switch is operable to route [[a]] ~~real-time voice communication calls~~ originating from the IP network to [[a]] phones coupled with non-private branch exchange elements.

34. (Previously Presented) The system of claim 27, wherein the class 5 switch is operable to simultaneously route a received call to a plurality of pre-designated destination addresses.

35. (Currently Amended) A method of providing real-time voice communication between devices connected to an Internet Protocol (IP) network and devices connected to the public switched telephone network (PSTN), the method comprising:

receiving ~~a real-time voice communication call[[s]] originating from a telephone coupled with the PSTN from the IP network and the PSTN~~ utilizing a class-5 switch; and in the class-5 switch, routing the call[[s]] to the PSTN and the IP network respectively, wherein ~~the call[[s]] to or from the IP network passes~~ through gate interface circuitry that is connected to the class-5 switch and adapted for connection to the IP network.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

36. (Currently Amended) The method of claim 35, further including-  
routing subscriber real-time voice communication calls between from the IP network and to  
the PSTN; and  
~~prohibiting routing of non-subscriber calls between the IP network and the PSTN.~~

37. (Previously Presented) The method of claim 35, further including simultaneously routing a received call to a plurality of pre-designated destination addresses.

38. (Currently Amended) A system including:  
a telephone operable to provide depacketized voice information; and  
a gateway coupled with the telephone, the gateway operable to packetize the depacketized voice information to form packetized digital voice data, couple with a computer controlled switch through an Internet Protocol (IP) network, and provide the packetized digital voice data to the computer controlled switch to enable the telephone to communicate through the IP network and a public switched telephone network (PSTN).

39. (Previously Presented) The system of claim 38, wherein the computer controlled switch is a class 5 switch.

40. (Previously Presented) The system of claim 38, wherein the computer controlled switch is coupled with gate interface circuitry to facilitate communication through the PSTN.

41. (Previously Presented) The system of claim 38, wherein the computer controlled switch is operable for use by subscribers and the gateway is operable to provide subscriber information to the switch.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

42. (New) A system for providing real-time voice communication, the system comprising:  
gate interface circuitry coupled with an Internet Protocol (IP) network; and  
a computer controlled switch coupled with the gate interface circuitry and a public switched  
telephone network (PSTN), the computer controlled switch operable to-  
receive a real-time voice communication call originating from a telephone  
coupled with the PSTN,  
determine a subscriber destination address corresponding to the call,  
and  
if the determined destination address of the call corresponds to the IP  
network, route the call to the IP network to enable real-time voice  
communication between the telephone and at least one device  
coupled with the IP network.

43. (New) The system of claim 42, wherein the computer controlled switch includes a class  
5 switch.

44. (New) The system of claim 42, wherein the computer controlled switch is further  
operable to-  
receive a second real-time voice communication call originating from a second device  
coupled with the IP network,  
determine a subscriber destination address corresponding to the second call, and  
if the determined destination address of the second call corresponds to the telephone coupled  
with the PSTN, route the second call to the PSTN to enable real-time voice  
communication between the second device and the telephone.

45. (New) The system of claim 42, wherein the gate interface circuitry is operable to  
packetize the real-time voice communication call to facilitate routing the call to the IP network.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

46. (New) A method of providing real-time voice communication, the method comprising:  
receiving a real-time voice communication call originating from a telephone coupled with  
a public switched telephone network (PSTN);  
determining a subscriber destination address corresponding to the call; and  
if the determined destination address of the call corresponds to an Internet Protocol (IP)  
network, routing the call to the IP network to enable real-time voice communication  
between the telephone and at least one device coupled with the IP network.
47. (New) The method of claim 46, further including-  
receiving a second real-time voice communication call originating from a second device  
coupled with the IP network,  
determining a subscriber destination address corresponding to the second call, and  
if the determined destination address corresponds to the telephone coupled with the PSTN,  
routing the second call to the PSTN to enable real-time voice communication  
between the second device and the telephone.
48. (New) The method of claim 46, further including packetizing the real-time voice  
communication call to facilitate routing of the call to the IP network.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

49. (New) A system for providing real-time voice communication, the system comprising:  
gate interface circuitry coupled with an Internet Protocol (IP) network; and  
a computer controlled switch coupled with the gate interface circuitry and a public switched  
telephone network (PSTN), the computer controlled switch operable to-  
receive a PSTN format voice call from the PSTN,  
determine a subscriber destination address corresponding to the call,  
and  
if the determined destination address of the call corresponds to the IP  
network, route the call to the IP network utilizing the gate interface  
circuitry to enable real time voice communication between a first  
device coupled with the PSTN and a second device coupled with the  
IP network,  
wherein the gate interface circuitry is operable to packetize the PSTN format voice call to  
facilitate routing the call to the IP network.

50. (New) The system of claim 49, wherein the gate interface circuitry includes a gateway  
and a gatekeeper.

51. (New) The system of claim 49, wherein the computer controlled switch includes a class  
5 switch.

52. (New) The system of claim 49, wherein the gate interface circuitry is further operable  
to receive a packetized digital voice data call from the IP network and convert the received  
packetized digital voice data call to a second PSTN format voice call, the computer controlled switch  
being operable to route the second PSTN format voice call to the PSTN.

Application No.: 09/479,736  
Reply to Office Action of January 25, 2006  
Amendment Dated March 6, 2006

53. (New) A method of providing real-time voice communication, the method comprising:  
receiving a PSTN format voice call from a public switched telephone network (PSTN);  
determining a subscriber destination address corresponding to the call; and  
if the determined destination address of the call corresponds to an Internet Protocol (IP)  
network,  
packetizing the PSTN format voice call to form packetized digital  
voice data, and  
routing the packetized digital voice data to the IP network enable real time  
voice communication between a first device coupled with the PSTN  
and a second device coupled with the IP network.

54. (New) The method of claim 53, further including-  
receiving a packetized digital voice data call from the IP network,  
converting the received packetized digital voice data call to a second PSTN format  
voice call, and  
routing the second PSTN format voice call to the PSTN.

55. (New) The system of claim 27, wherein the gate interface circuitry is operable to  
packetize the real-time voice communication call to facilitate routing the call to the IP network.

56. (New) The method of claim 35, further including packetizing the real-time voice  
communication call to facilitate routing of the call to the IP network.